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The Dynamics of Land Use in New York State

by Howard E. Conklin, Professor of Land Economics,
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In 1947 we published a series of articles in THE CONSERVATIONIST *calling attention to the biggest conservation problem in the State—what to do with millions of acres of sub-marginal hill lands spread across the backbone of New York that had gone out of agricultural production since the late 1800's.*

That trend has continued—and accelerated, as pointed out by Howard E. Conklin in the accompanying article. But one thing has changed. Something is being done about it. A rural revolution is in progress in New York—its course traced in these three lead articles.—A. W. BROMLEY

AGRICULTURE in New York is a highly vigorous and dynamic industry. Farmers in this State, in partnership with science and industry, make greater progress in methods of lands use each decade than their forefathers made in centuries.

Farm output in New York State has increased by 1/3 since 1900, while the land devoted to commercial farming has declined by 50 per cent in the same period. As a consequence, eleven million acres have been made available for urban uses, reforestation, and outdoor recreation in many forms. Some of this area remains in part-time farms, but part-time farming today is increasingly a form of recreation.

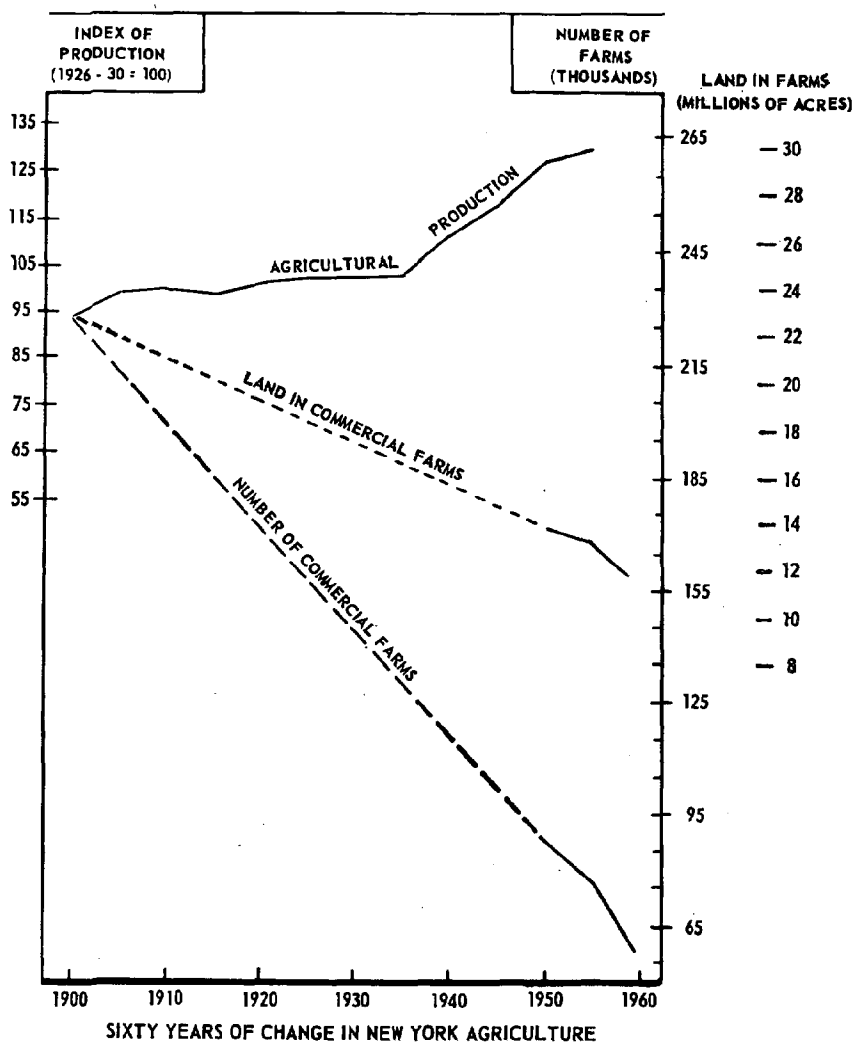
Part-time farms and the smaller commercial farms are declining rapidly at the present time. The area in all farms in New York has declined at the rate of 250,000 acres *per year* from 1950 to 1960.

Progress in New York agriculture is one phase of the total progress we have made in this nation since the turn of the century. The basic problem of man in all times and places has been one of increasing the ability of his hand and mind to convert natural resources into things he wants, at the same time diminishing the supply of resources as little as possible. As man increases the ability of his hand and mind, his time becomes more valuable, both to him and to others. New York's agricultural progress traces to the changes that have made the labor of a man a very valuable commodity in this part of the world.

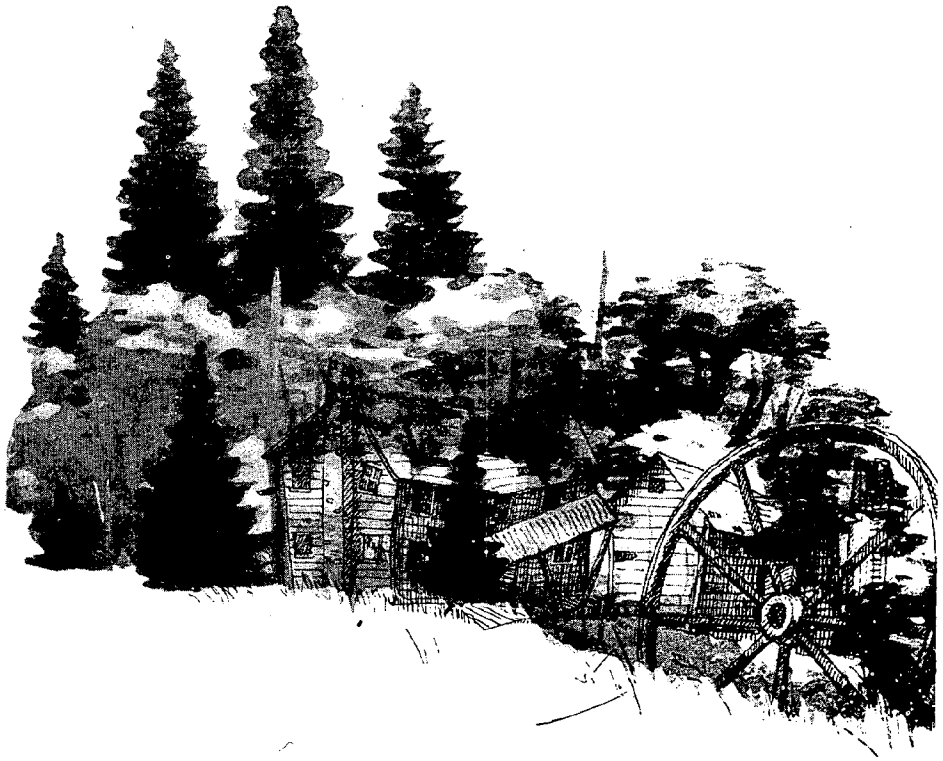
The high value of labor presents itself to a farmer as attractive alternatives for himself and as high wages for his hired man. These attractive alternatives are taking many farmers out of farming. The pressure of scarce and costly hired labor forces those who remain farmers to increase output per hour of labor.

One important way to increase output per hour is to increase yields per acre. New York farmers have been pushing aggressively for higher yields—and they are getting them! In fact they have increased yields well beyond the rate at which demand for food has increased. Land has been retired as a result.

Progress in this nation will continue,

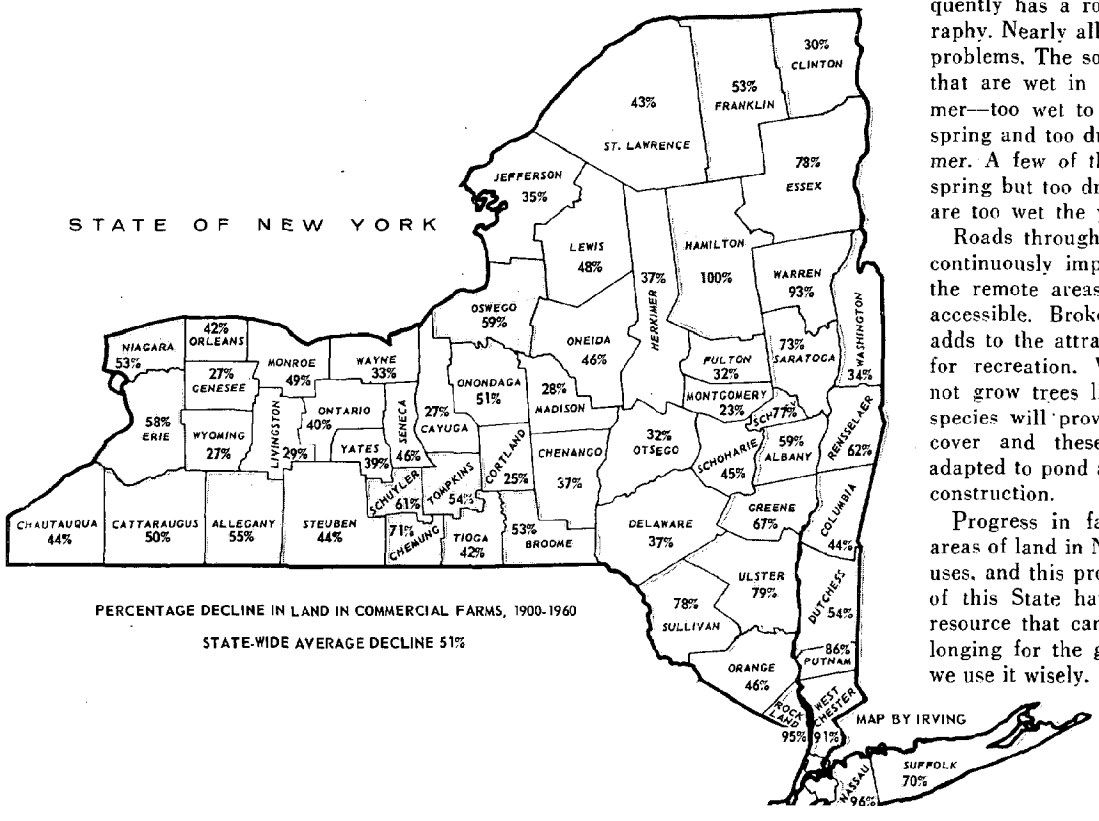


SIXTY YEARS OF CHANGE IN NEW YORK AGRICULTURE



and progress in agriculture will remain a part of it. The retirement of farm land in this State traces directly to such advances as introduction of new crops, genetic improvement of old crops, formulation of new herbicides and insecticides, manufacture of new fertilizers, preparation of new feed additives, improvements in livestock and in medical care, and development of new techniques for combining old factors of production. Mechanization has contributed to increased yields by permitting more timely planting and harvest, increased use of irrigation, and better drainage. The scientific and industrial pipelines are full of possibilities for further improvements. A new package of techniques very recently has become available for growing corn in this State. Widespread adoption of this package surely will lead to much substitution of high yielding corn silage for lower yielding hay and a consequent reduction in the area needed in dairy farming. Mechanization of forage handling and of barn feeding currently is reducing the importance of pasture. Pasturing dairy cows may be an obsolete practice in 25 years; output per acre being so much higher for cultivated crops than pasture.

Color denotes counties where decline in agriculture exceeds state-wide average



PERCENTAGE DECLINE IN LAND IN COMMERCIAL FARMS, 1900-1960

STATE-WIDE AVERAGE DECLINE 51%

MAP BY IRVING

New York cannot continue indefinitely to retire 250,000 acres per year from farming, but the new ideas and techniques that are on hand or being pushed toward completion will continue to sustain land retirement for many years to come.

The land that is passing out of farming has problems, of course, and some of these may limit its suitability for other uses. Retired farm land often is located in the somewhat more remote areas of the State, often is on hill tops, and frequently has a rough and broken topography. Nearly all of it has soil and water problems. The soils usually are the kind that are wet in spring and dry in summer—too wet to plant crops on time in spring and too dry for top yields in summer. A few of the soils are all right in spring but too dry in summer, and a few are too wet the year round.

Roads throughout the State are being continuously improved, however, making the remote areas and the hilltops more accessible. Broken topography actually adds to the attractiveness of many areas for recreation. Wet-droughty soils will not grow trees like red pine, but many species will provide at least a beautiful cover and these soils often are well adapted to pond and small wildlife marsh construction.

Progress in farming has freed large areas of land in New York State for other uses, and this progress is continuing. We of this State have a vast and growing resource that can be used to satisfy our longing for the great out of doors. May we use it wisely.

Found in New York: 11 Million Acres for

TENS of thousands of New York families have found a new way of life. A way of life returning satisfaction and enjoyment scarcely dreamed of previously. The base for this life—10, 50 or 100 of the 11 million acres of obsolete farm land in New York. [Ed. note: See Howard E. Conklin's article.]

These families reaping a harvest of contentment and relaxation from their acres may well be the forerunners for hundreds of thousands of other New York families. These precursors have found these lands can yield an abundant crop of recreation, the very thing so many search for today; a spot to escape the everyday pressures and concerns; an island of privacy; a place of relaxation.

This relaxation is important to the family but it also will be of great importance to communities. Use of lands for family living and recreation will become a major factor in many rural areas and will increasingly influence community life and development.

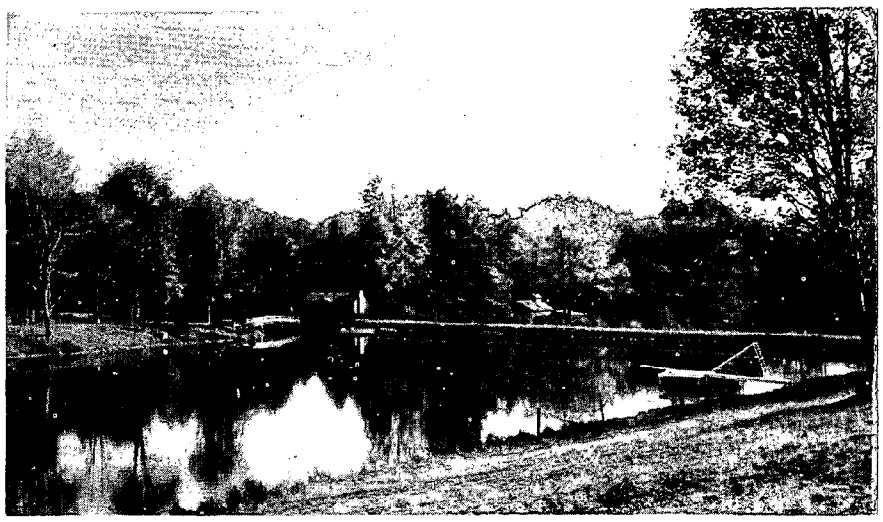
Some communities will find the majority of families are year-long residents on their acreage, with the bread winner driving to work in nearby towns. Other communities may find substantial numbers of families using their land only on week ends or vacations, perhaps most of the family spending the summer on the property, the husband enjoying the family recreation spot on week ends.

These family living lands, these properties developed by families for their own recreation, are quite different than the mass outdoor recreation developments we frequently notice. Commercial and public recreation lands generally require large sums of money for proper development. They are obvious, eye-catching manifestations of the desire New York families have to enjoy themselves in the outdoors. Although many families will use these commercial facilities, many others will create a "resort" of their own.

These families will find minor effort and investments will enable their property to return greater enjoyment. Developing a pond will provide the chance for a cooling dip and, if fish are stocked, allow all the family to try and catch that "lunker" lurking in the cool water.

Many families will reforest acres, perhaps mostly for the satisfaction of seeing the young trees begin their soaring growth skyward. Others would rather view a soaring grouse over a shotgun and so will develop their property with this in mind.

Remodeled homes (as here) provide better family living and stimulate business in rural communities



Once a bit of swampy, obsolete farm land

Horseback riding, gardening, bird watching and simply walking through woods and fields are other activities family members will undertake to make their properties "pay off." Pay off not in dollars, but in contentment, in peace of mind.

The rural community can have greater peace of mind too if families are encouraged to use obsolete farm land for recreation. This very use has largely been responsible for the increase in values of rural land in New York State. A recent study in Tompkins County

Family Living

by Bruce T. Wilkins, Robert W. Snyder,

N.Y.S. College of Agriculture, Cornell University

indicates that today acreages of bare land, with no buildings, are being purchased by families primarily for family living, at an average cost of $25 an acre. New York State has found that to purchase recreation lands under its recent land acquisition bond issue has cost not the $5 an acre of the 1930's but rather some $35 an acre. This increase in land value has clearly led to increased tax revenue for rural areas.

Added tax revenue becomes minor, however, when compared to the increased assessment on properties when new houses, cottages or summer places are constructed.

An extreme example of this effect is one parcel of 300 acres of woods and pasture on which taxes of $160 were paid some 15 years ago. Ten years later this same 300 acres, with 40 summer homes built by families about a man-made lake, provided some $3,000 in tax revenue to this rural town. Tax gains accrue also to the community from improvement of existing buildings. When new roofs or new sidings are installed and other improvements made on existing dwellings the community gains not only better looking homes, but in addition, more taxes. Nearly $2,000 was spent on home improvements in seven years by the average family in the Tompkins County study, and these improvements were duly noted and included by assessors. The tax roles aren't the only place changes will show up.

The entire community is also affected by increased job opportunities—jobs of a service nature. Employment is stimulated in local grocery stores, drug stores and the community bank, for example. The number of workers needed will grow as people not only live in, but improve or build new dwellings on abandoned farms. Paint, lumber, hardware must be purchased, and applied. In most rural areas there will be a greater demand for carpenters, electricians and well drillers, for example, than there have been in years past.

Developing the land resource for the family's enjoyment creates additional job opportunities. Construction of a pond will require hiring a bulldozer and a bulldozer operator, the operator purchasing his dozer from a local equipment dealer. Planting of the meadows to trees provides still more business opportunities for the commercial nurseries, commercial tree planting services and the manufacturer of the tree planter.

But not all of the values to the community are measured in taxes, jobs or even dollars. Surely none of these are an adequate yardstick of the value of strengthened and resurgent community services. Churches, schools, hospitals and other services in many rural areas can be maintained and further developed when more families wisely use their land resource. By maintaining the population of rural areas, the non-farming resident can help keep the community strong, economically, socially and politically.

These are desirable aspects for both the families owning the land and for the community. These probable changes are not without potential problems and concerns, however. There are indications that communities may find increased demands for more services and for better quality services. Roads become particularly important to families whose bread winner must commute to work each day. The problem not only of maintaining these roads but of snow plowing can assume great importance in many rural communities. Additional costs may include increased expenditures for schools if rural populations increase.

These considerations of increased cost leads some observers to point up the advantages of a community attracting part-time residents, rather than full-time residents. Living most of the year away from their property these part-time residents place no increased demand on schools in the rural areas and winter snow removal on roads servicing these homes is less pressing. No school buses use these roads and perhaps few cars travel them from the end of deer season to spring. Some observers have suggested these reasons are attractive enough for certain communities to attempt to develop procedures for maintaining certain roads only during specified times of the year. This is certainly one way by which the demand for these lands can be influenced by a community.

Many other possibilities for stimulating demand exist—from simply welcoming families, thus encouraging others to use and develop lands in the community for recreational purposes—to more active encouragement for families. For example, few resources increase the recreational potential of an area as does water. With today's technological know-how, many communities could undoubtedly encourage the use of land by families for recreation by helping to provide large bodies of water.

A community insuring the preservation of the beauty of its countryside adds further stimulation to people's desire to own land in that area. Some things, not as easily noted as the beautiful scenery, may in the long run be of equal or greater value in increasing demand. The agencies serving rural New York and located within the counties can provide educational, technical or even financial assistance to these families. Extension Service Associations, Soil Conservation Districts and Agricultural Stabilization and Conservation Committees can all lend great impetus to family recreational use of this type of land.

County government can be concerned with other items such as providing adequate police protection of buildings, of particular concern to non-resident owners absent much of the time. Certainly good roads, well-maintained, can dramatically effect the demand for a particular property. Led by good roads to a community, other activities could be inaugurated to encourage part-time resident families to use their properties more frequently. Maple syrup festivals or celebration of fishing season or hunting season openings might attract these families to use their rural retreat more frequently. Still other opportunities do exist for communities to help meet the needs of these families—needs which, when met, stimulate other families to purchase, develop and use these obsolete lands for recreation.

Every rural community in New York will be effected by the changing uses of land. Some, with forethought and considered judgment, will direct this opportunity so it provides maximum value to the families owning the land and to the community.

Oliver Wendell Holmes once said: "I find the great thing in the world is not so much where we stand, as in the direction we are moving."

We can move in the direction of utilizing these 11 million acres to meet more fully the desire of many New York families to own some land—to yield a new kind of "return." A return in the form of a Christmas tree cut from seedlings they planted. A return possibly measured in the width of a smile over the first fish caught in the family pond, or a muskrat trapped on the family marsh. A return as simple as peaceful and as quiet as watching your family enjoy and cherish the land you own and wisely use.

Rural Resources Development—a Framework for

BOUNDLESS opportunity! That is how we, and, we trust how you, react to the situations described in the two preceding articles.

Sweeping and swift changes in land use present new opportunities for natural resource development at a time in history when our needs in outdoor recreation are skyrocketing. Efficiencies in our dynamic agriculture are releasing open space for housing, industry and transportation, almost as if this space was a programmed product of this gigantic enterprise. And, at the same time, we enjoy the blessings of a State and a nation well stocked with the food, fiber and other wealth from land—even enough to share with other peoples.

Opportunities? Indeed, they *are* present in this situation. But so are problems. A close-in view reveals them at every turn, side by side with opportunity, as the two sides of a coin. Perhaps that's a good analogy; we shall return to it.

Take some local areas where rural residences—the ones Robert W. Snyder and Bruce T. Wilkins speak of—abound. What other land uses have moved in as agriculture withdrew to more favorable soils: Auto graveyards? Unkept properties? Housetrailers, in row upon row without trees or any semblance of landscaping? And what of the effect of these latter land uses: How much do they depress both human values and land values?

Or, take community facilities for outdoor recreation. Our State's $100 million bond acts were momentous pioneering ventures in modern-day conservation. But how many communities, especially villages and small towns, did not apply for this help and perhaps still do not recognize the benefits that might accrue to their residents if they had a local park? Often, such communities literally will be surrounded by land that might be purchased for such use at relatively low cost.

Still in the vein of outdoor recreation, how do you tackle this one: The parallel yet complementary development of public and commercial outdoor recreation. Some families appear to be successfully supplementing their income by operating campgrounds, golf courses or marinas. Yet, their business future, and those of others desiring to begin such enterprises, can rise or fall depending upon how, and to what extent, public recreation facilities are provided.

If the weight of these problems hasn't got you down, consider the enigma posed by our vast expanses of second growth forest. "Green lies," some foresters dub them. They look like forests, feel like forests, smell like forests, but in reality are far from forests in the sense of having the kinds and quality of timber that present markets demand. While we do not underestimate the aesthetic, recreation, wildlife and watershed values of these forest lands, think what *more* they might contribute to the community if, through an intensified search, we might find better markets and more efficient harvest techniques for the woods products they *do* produce.

Now, reverse each "coin." In the other aspect, the problem becomes opportunity; a challenge for people to seek solutions, and beyond; the promise of something better socially, economically.

People in New York State communities are looking beyond problems to possibilities. They have been doing it in many places, in many ways. Much of the organized effort has a highly specified purpose, with goals centered on attracting new industry, improving the production and marketing of an agricultural commodity, abating pollution, providing vocational education, or enlarging public hunting and fishing opportunity. Other approaches we recognize immediately to be directed to broader aims. A town or county planning board would be an example.

The R.R.D. Program

In 1963, something new appeared on our scene of group endeavor in community improvement, a county or regional program concept known as *Rural Resources Development*. It is New York State's adaptation of a nationwide program projected toward economic growth and social development—Rural Areas Development. This program (R.A.D.), perhaps will be recognized by the reader as beginning during President Eisenhower's administration to counter severely depressed economic conditions over scattered parts of the country. From its start on a pilot basis in only a few counties, it is now widespread.

While the goals of R.R.D. (back in New York's nomenclature) are lofty, the approach embodied in the concept is direct and workable. The emphasis is on a *co-ordinated* approach to solving problems of the type that were mentioned earlier. In other words, bringing together local resources in education, technical services, financing, etc., that may be needed to reach a specific objective.

At the Federal level, R.A.D. obtains its principal guidance from the United States Department of Agriculture, although other departments of the Federal government now co-operate closely. Accordingly, in the states the U.S.D.A. agencies, and others with ties to U.S.D.A., have certain responsibilities with respect to R.A.D. The New York State Co-operative Extension Service and County Extension Service Associations, for instance, are called upon to organize citizen committees at the local level, as well as a State Committee. Similarly, the Farmers' Home Administration in New York brings together technical agencies that may serve the program through county and state Technical Action Panels. State and local government specialists in conservation, health, labor and education may be on county committees, Technical Action Panels, or both.

R.R.D. in New York

In New York, County Agricultural Agents in 26 counties have tapped local leadership to form R.R.D. committees. Usually the appointments are made in close consultation with the County Board of Supervisors and other county groups with broad responsibility. Committee representation includes men and women leaders in all walks of life: Business, agriculture, conservation, local government, education.

The State Committee, after meeting several times under the leadership of Directors of Extension M. C. Bond, and then his successor, A. A. Johnson, elected its own officers late in 1963. Harold L. Creal of Homer serves as Chairman; Silas Eakins, of Potsdam, as Vice Chairman; and Clifford R. Harrington, Associate Director of Extension, as Secretary.

So much for organization; how do these committees function?

How It Works

Before answering that question, let us look briefly at an important process present here. At one hand we have a problem, a need that has aroused concern. Obviously, there can be much ground to cover between simply recognizing a need and meeting it success-

Meeting Change

by **Harlan B. Brumsted,** N. Y. S. Co-operative Extension Service, Cornell University

fully through the proper course of action. The essence of these intervening steps is obtaining knowledge of the situation which, in turn, can lead to its understanding. With these steps accomplished, constructive action can follow.

Mustering this knowledge, and working toward full understanding of a situation make up a "study stage" in which most of our county R.R.D. committees as new organizations, now are engaged. The process may be undertaken by the full committee or, more typically, by sub-groups of the parent committee. In either case, it's a time for hearing expert opinion, taking field trips, holding discussion, and always one of rolling up the sleeves and digging in.

Just what is all the studying about? In experience thus far, the first one or two R.R.D. Committee sessions brings leading concerns to the fore; airs regional problems without much probing. Comparing lists of them, county by county, reveals an astonishing degree of similarity. Many rural problems truly are state-wide in nature and importance, although they may vary in degree, locale to locale.

Land-use-related concerns invariably turn up on such lists; matters along the lines of land-use change, conflicting types of land use, and interest in achieving a measure of planning. Other natural resource-concerns identify water pollution abatement, improved water supply, strengthening the future of commercial outdoor recreation, and expanding markets for forest production as needs that are leading topics among rural leadership these days.

Such lists always go on to embrace even a wider range of social and economic needs—improved highways, vocational training and re-training, housing for senior citizens—all are typical inclusions.

Once concerns are identified, R.R.D. committees give priorities to them and organize sub-committees to investigate their situations. Cortland County has ten sub-groups working concurrently. Four or five is typical.

One Step at a Time

But again, R.R.D. is an action program and study is merely a first step of essential preparation. Next comes the search for solutions to problems. Often it's most realistic to work in terms of a meaningful contribution to a solution; not the whole job. This is an important point, for nothing can cause a group to bog down more rapidly than setting forth to reshape the world and failing, when it might have taken a series of short strides that really counted!

A good example of a sound course is offered by the Wyoming County R.R.D. Committee's exploration of some pros and cons of formal county-wide planning—whether to set up a planning board, hire consultants vs a county planning staff, and so forth. Here, the study *in itself* was a required and important form of action. Subsequent steps will be taken by the Board of Supervisors but a timely step that needed doing *was accomplished* by the R.R.D. Committee.

Also, new or expanded education programs may be a valuable form of action. Take a county with growing numbers of rural residential-recreational properties. R.R.D. Committee studies and recommendations could lead to the County Extension Service enlarging its educational effort to this audience along the lines of their conservation and outdoor recreation interests, as described in the preceding article. As individual owners put practices into effect on their land, their activity develops an increased demand for technical assistance, and perhaps financial help, as well.

Co-ordination is Essential

This brings us back again to the heart of this program, interagency co-operation and co-ordination. They really are the essence of what makes it different and able to be effective. A good example of this teamwork in action is taking place now in three southwestern counties: Allegany, Cattaraugus and Chautauqua, where there is a regional R.R.D. Committee. Formed late in 1962, this 35-member group worked during most of 1963 in four sub-committees: Forestry, commercial outdoor recreation, family residence outdoor recreation, and public policy. Each presented its findings and recommendations in reports which first were approved by the full committee and then reviewed by local personnel of many agencies.*

One important topic in the forestry report concerned problems of pulpwood cutters in this region. Essentially, the contractors faced difficulties both with business aspects of their operations and in hiring skilled workers. As contractors faltered, others suffered, too—wood lot owners, pulp cutters, processors. With needs spelled out clearly by the Forestry Sub-Committee, action shaped up rapidly. It took the form of designing and effecting two tailor-made education programs; one in business management for the contractors; a second in woods skills for their employees. Note this list of all who are participating: Extension, College of Agriculture, College of Forestry, State Conservation Department, State Department of Labor, American Pulpwood Association, two consulting foresters and four forest industries! Each has highly specialized contributions to offer. Not one of them possessed the resources to do the job alone, but R.R.D. was able to harness these resources; provide the catalyst, if you will, and strive for accomplishment.

Summing Up

Let us sum up the R.R.D. approach. While circumstances will alter emphasis, it is a process involving these steps: (1) Identifying problems and concerns, (2) assigning priority for work with them, (3) careful study of situations, (4) outlining courses of action, (5) organizing the resources action demands, (6) conducting education to gain citizen response and support, and (7) getting on with the job. Here, it seems, is a comprehensive, concerted approach; the tool with the temper and edge required to shape change and complexity into the benefits desired.

The coming months will see an increase in tempo as existing R.R.D. committees swing from study into action, and new committees are formed in additional counties. The interest and enthusiasm of community workers in R.R.D. is high. They note much pressing work that begs attention. It's inspiring and a rewarding experience to have an active part in getting the job done.